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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,606	12/28/2001	Thomas Fuehrer	10191/2165	1956

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EXAMINER

BOUTAH, ALINA A

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,606

Applicant(s)

FUEHRER ET AL.

Examiner

Alina N Boutah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

Figures 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,706,278 issued to Robillard et al. (hereinafter referred to as Robillard).

Regarding claim 1, Robillard teaches a method of exchanging data between at least two users that are interconnected over a bus system, the data being contained in messages transmitted by the users over the bus system, the method comprising the steps of:

transmitting the data as event-oriented data over the bus system, as long as a preselectable latency elapsing between a transmission request by one of the users and an effected transmission operation of the one of the users is ensured for each message to be transmitted, as a function of a capacity utilization of the bus system (abstract; col. 1, lines 25-32); and

if the preselectable latency elapsing between the transmission request by the one of the users and the effected transmission operation of the one of the users is not ensured for each message to be transmitted, transmitting the data over the bus system according to a deterministic operation (abstract; col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 2, Robillard teaches the method according to claim 1, further comprising the step of: monitoring the capacity utilization over time, wherein: the preselectable latency cannot be ensured for each message to be transmitted if an uninterrupted utilization of the bus system over time exceeds a preselectable time threshold (figure 4; col. 9, lines 26-42).

Regarding claim 3, Robillard teaches the method according to claim 1, further comprising the step of: monitoring the capacity utilization, wherein: the preselectable latency cannot be ensured for each message to be transmitted if a number of messages transmitted in direct succession over the bus system exceeds a preselectable threshold (col. 12, line 41 to col. 13, line 7).

Regarding claim 4, Robillard teaches the method according to claim 3, further comprising the steps of: counting by the user the messages transmitted in direct succession from the one of the users over the bus system; and transmitting a current number of the messages in direct succession over the bus system to others of the users (col. 12, line 41 to col. 13, line 7).

Regarding claim 5, Robillard teaches the method according to claim 4, wherein: the current number of the messages being transmitted in direct succession in one of a cyclic redundancy check and another checksum is included in a count produced by the counting to ensure a data content of one of the messages and is transmitted together with the one of the messages (col. 9, lines 26-43).

Regarding claim 6, Robillard teaches the method according to claim 5, further comprising the step of: jointly forming the one of the cyclic redundancy check and the other checksum from the data content of the one of the messages and the current number of the messages being transmitted in direct succession (col. 11, lines 30-59).

Regarding claim 7, Robillard teaches the method according to claim 1, further comprising the step of: switching from the deterministic operation over the bus system to an event-oriented transmission when a predetermined end of the deterministic operation is reached (abstract; col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 8, Robillard teaches the method according to claim 1, further comprising the step of: transmitting the data transmitted according to the deterministic operation in a time-triggered manner (col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 9, Robillard teaches the method according to claim 8, wherein: the time-triggered manner corresponds to a time-division multiple-access (TDMA)-based operation (col. 1, lines 50-67).

Regarding claim 10, Robillard teaches the method according to claim 1, further comprising the step of: transmitting the data transmitted according to the deterministic operation with dynamically variable priorities of one of the messages and message groups on a priority shift basis (col. 1, lines 50-67).

Regarding claim 11, Robillard teaches a communication system, comprising:

at least two users (figure 1; col. 1, line 42);

a bus system over which the at least two users are interconnected for exchanging data among the at least two users, the data being contained in messages transmittable from the at least two users over the bus system (figure 1);

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an arrangement for monitoring a capacity utilization of the bus system (col. 12, line 41 to col. 13, line 7);

an arrangement for performing an event-oriented transmission of the data over the bus system (col. 1, lines 25-32);

an arrangement for performing a deterministic transmission of the data over the bus system (col. 2, lines 35-37; col. 3, lines 36-62); and

an arrangement for selecting one of the event-oriented transmission and the deterministic transmission, wherein: the arrangement for selecting selects the event-oriented transmission, as long as a preselectable latency elapsing between a transmission request by one of the at least two users and an effected transmission operation on the part of the one of the at least two users is able to be ensured as a function of the capacity utilization of the bus system for each message to be transmitted, and the arrangement for selecting selects the deterministic transmission if the preselectable latency elapsing between the transmission request by the one of the at least two users and the effected transmission operation of the one of the at least two users is not ensured for each message to be transmitted (abstract; col. 1, lines 25-32; col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 12, Robillard teaches a memory element of a communication system for one of a plurality of users, the communication system being connected to at least another of the plurality of users over a bus system for an exchange of data, the memory element storing a

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program that is able to run on a computer of the one of the plurality of users, the program causing the computer to perform the steps of:

transmitting the data as event-oriented data over the bus system, as long as a preselectable latency elapsing between a transmission request by the one of the plurality of users and an effected transmission operation of the one of the plurality of users is ensured for each message to be transmitted, as a function of a capacity utilization of the bus system (abstract; col. 1, lines 25-32); and

if the preselectable latency elapsing between the transmission request by the one of the plurality of users and the effected transmission operation of the one of the plurality of users is not ensured for each message to be transmitted, transmitting the data over the bus system according to a deterministic operation (abstract; col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 13, Robillard teaches the memory element according to claim 12, wherein: the memory element includes one of a read-only memory, a random-access memory, and a flash memory (figure 2).

Regarding claim 14, Robillard teaches the memory element according to claim 12, wherein: the computer includes a microprocessor (figure 2).

Regarding claim 15, Robillard teaches a computer program for causing a computer to perform the steps of:

transmitting data as event-oriented data over a bus system, as long as a preselectable latency elapsing between a transmission request by one of a plurality of users and an effected transmission operation of the one of the plurality of users is ensured for each message to be transmitted, as a function of a capacity utilization of the bus system (abstract; col. 1, lines 25-32); and

if the preselectable latency elapsing between the transmission request by the one of the plurality of users and the effected transmission operation of the one of the plurality of users is not ensured for each message to be transmitted, transmitting the data over the bus system according to a deterministic operation (abstract; col. 2, lines 35-37; col. 3, lines 36-62).

Regarding claim 16, Robillard teaches the computer program according to claim 15, wherein: the computer includes a microprocessor (figure 2).

Regarding claim 17, Robillard teaches the computer program according to claim 15, wherein: the computer program is stored on a memory element (figure 2).

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Regarding claim 18, Robillard teaches the computer program according to claim 17, wherein: the memory element includes a flash memory (figure 2).

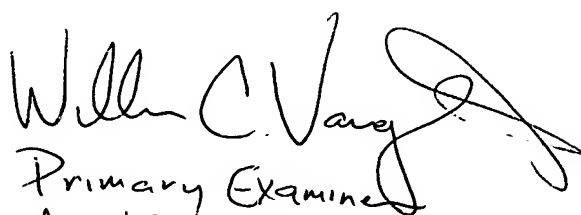
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alina N Boutah whose telephone number is 571-272-3908. The examiner can normally be reached on Monday-Friday (9:00 am - 5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ANB


Primary Examiner
Art Unit 2143
William C. Vaughn, Jr.